REMARKS

Claims 1, 2, 6, 7, 8, 9, 11, 12, 16, 17, 18, and 19 have been amended. No claims have been cancelled or added. Hence, Claims 1 – 9 and 11 - 19 are pending in the Application.

REJECTION BASED ON 35 USC 112

Claims 1 and 11 are rejected under 35 USC 112 for being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner stated claims 1 and 11 are indefinite because "Being nodes different from clients, then clients request information and nodes retrieve information caused by something not particular clear". Claims 1 and 11 have been amended to clarify a node can be a client of the name service. Applicant respectively submits that claims 1 and 11, as amended, are not indefinite. Reconsideration and removal of the rejections is respectfully requested.

REJECTION UNDER 35 USC 103(a)

Claims 1 – 9, and 11 – 20 are rejected under 35 USC 103(a) as being obvious over U.S. Patent No. 5,862,331, herein *Heriot*, in view of U.S. Patent No. 5,835,766, herein *Iba*, in further view of U.S. Patent No. 4,853,843, herein *Ecklund*. These rejections are traversed.

Claims 1 and 11, as amended, recite:

> wherein said name service registers information received from clients and provides said
>> information to clients that request the information, wherein said clients include
>> one or more nodes different than a node on which said name service resides; and
> causing a particular node of said one or more nodes that requires information about
>> participants in said distributed operation to retrieve said participant data from said
>> name service.

Claims 1 and 11 contain features that are not disclosed or suggested in anyway by the cited art. For example, the cited art fails to disclose or suggest causing a particular node to

retrieve participant data from a name service, where the name service resides on a node different from the particular node.

In the Office Action, the Examiner supports the rejection of claims 1 and 11, as unamended, by alleging that *Iba* suggests the step of "causing a node that requires information about participants in said distributed operation to retrieve said participant data from said name service." Apparently, the Examiner bases this allegation on an analogy drawn between the WFG table in *Iba* and the name service in the claims, and between the local lock managers (LLMs) and global lock managers that get data from the WFG table and a node that retrieves information from name service. (See Office Action, page 2, 3rd full paragraph, and section 8)

Even if this analogy were true, which it is not, *Iba* fails to suggest in any way causing a particular node to retrieve participant data from a name service, where the name service resides on a node different from the particular node, as claimed. *Iba* teaches that a WFG table is accessed only by LLMs that reside within the same resource manager as the WFG table (col. 3, lines 48 – 60, FIGS. 3 and 4), or only by a global deadlock detector (col. 9, line 58 – col. 10, line 2, FIG. 9) *Iba* does not disclose or suggest in any that the LLM or global deadlock detector reside on a node different than a node on which their respective WFG tables reside. Because Iba fails to disclose or suggest in anyway that a node, different from than one on which the WFG table resides, retrieves data from the WFG table, Iba fails to suggest in any way that a node retrieves participant data from any type of entity that resides on different node, let alone a names service that resides on different node, as is claimed.

In addition, *Heriot* and *Ecklund* fail to suggest in anyway a particular node that retrieves participant data from a name service, where the name service resides on a node different from the particular node. In fact, the Examiner has not even alleged that *Heriot* and *Ecklund* suggest a node that retrieves participant data from a name service.

DEPENDANT CLAIMS

The remaining claims are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of the dependant claims is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of the dependant claims introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case, a separate discussion of those limitations is not included at this time.

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Respectfully submitted,

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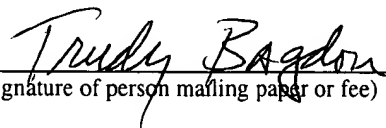Facsimile No.: (408) 414-1076

MARKED-UP VERSION OF CLAIMS

1   1.   (Amended) A method of determining participants of a distributed operation in a

2   distributed system, the method comprising the steps of:

3   registering in a name service participant data that identifies a plurality of participants that

4   are participating in said distributed operation;

5   wherein said distributed operation is a unit of work involving said plurality of

6   participants;

7   wherein said name service registers information received from clients and provides said

8   information to clients that request the information**, wherein said clients include**

9   **one or more nodes different than a node on which said name service resides**[5];

10   and

11   causing a **particular** node **of said one or more nodes** that requires information about

12   participants in said distributed operation to retrieve said participant data from said

13   name service.

1   2.   (Amended) The method of Claim 1, wherein the step of causing a **particular** node ~~to~~

2   ~~retrieve said participant data~~ includes causing said **particular** node to retrieve said

3   participant data in response to said **particular**[13] node performing deadlock detection.

1   3.   (No Change) The method of Claim 1, wherein:

2   said distributed operation is a distributed transaction; and

3   the step of registering includes registering in a name service participant data that

4   identifies which database servers of a plurality of database servers are

5   participating in said distributed transaction.

1   4.   (No Change) The method of Claim 1, further including the step of causing updates to said

2   participant data to identify a new participant in said distributed operation.

1   5.   (No Change) The method of Claim 4, wherein:

2   said distributed operation is a distributed database transaction being executed by a set of

3   processes coordinated by a coordinator process;

4   the method further includes the step of said coordinator process causing a new process on

5   a database server to participate in said distributed database transaction; and

6   the step of causing updates to said participant data includes said coordinator process

7   causing updates to said participant data in response to said new process

8   participating in said distributed database transaction.

1   6.   (Amended) The method of Claim 1, wherein:

2   said distributed operation is a distributed database transaction;

3   the step of registering includes registering participant data that identifies which database

4   servers of a plurality of database servers are participating in said distributed

5   database transaction; and

6   the step of causing a **particular** node ~~to retrieve said participant data~~ includes causing a

7   **particular** node that requires information about participants in said distributed

8   database transaction to retrieve said participant data from said name service.

1   7.   (Amended) The method of Claim 1, wherein:

2   said distributed operation is a distributed database transaction;

3   the method further includes the step of assigning a transaction identifier to said

4   distributed database transaction;

5   the step of registering includes registering in said name service data that associates said

6   participant data with said transaction identifier; and

7   the step of causing a **particular** node includes causing a **particular** node to request from

8   said name service published data associated with said transaction identifier.

1 8.   (Amended) The method of Claim 1, wherein the ~~step of causing a node to retrieve said~~

2   ~~participant data includes~~ **steps further include** said name service ~~process~~ receiving a

3   request from a first process to supply said participant data, wherein said name service

4   ~~process~~ and said first process reside on said **particular** node.

1 9.   (Amended) The method of Claim 8, wherein the step of causing a **particular** node ~~to~~

2   ~~retrieve said participant data~~ includes said name service ~~process~~ retrieving said

3   participant data from one or more data structures residing on said **particular** node in

4   response to receiving said request.

1 10.   (Cancelled)

1 11.   (Amended) A computer-readable medium carrying one or more sequences of one or more

2   instructions for determining participants of a distributed operation in a distributed system,

3   the one or more sequences of one or more instructions including instructions which, when

4   executed by one or more processors, cause the one or more processors to perform the

5   steps of:

6   registering in a name service participant data that identifies a plurality of participants that

7   are participating in said distributed operation;

8   wherein said distributed operation is a unit of work involving said plurality of

9   participants;

10   wherein said name service registers information received from clients and provides said

11   information to clients that request the information, **wherein said clients include**

12   **one or more nodes different than a node on which said name service resides**;

13   and

14   causing a **particular** node **of said one or more nodes** that requires information about

15   participants in said distributed operation to retrieve said participant data from said

16   name service.

1   12.   (Amended) The computer-readable medium of Claim 11, wherein the step of causing a

2   **particular** node ~~to retrieve said participant data~~ includes causing said **particular** node to

3   retrieve said participant data in response to said **particular** node performing deadlock

4   detection.

1   13.   (No Change) The computer-readable medium of Claim 11, wherein:

2   said distributed operation is a distributed transaction; and

3   the step of registering includes registering in a name service participant data that

4   identifies which database servers of a plurality of database servers are

5   participating in said distributed transaction.

1   14.   (No Change) The computer-readable medium of Claim 11, further including the step of

2   causing updates to said participant data to identify a new participant in said distributed

3   operation.

1   15.   (No Change) The computer-readable medium of Claim 14, wherein:

2   said distributed operation is a distributed database transaction being executed by a set of

3   processes coordinated by a coordinator process;

4   the computer-readable medium further includes sequences of instructions for performing

5   the step of said coordinator process causing a new process on a database server to

6   participate in said distributed database transaction; and

7   the step of causing updates to said participant data includes said coordinator process

8   causing updates to said participant data in response to said new process

9   participating in said distributed database transaction.

1   16.   (Amended) The computer-readable medium of Claim 11, wherein:

2   said distributed operation is a distributed database transaction;

3   the step of registering includes registering participant data that identifies which database

4   servers of a plurality of database servers are participating in said distributed

5   database transaction; and

6   the step of causing a **particular** node ~~to retrieve said participant data~~ includes causing a

7   **particular** node that requires information about participants in said distributed

8   database transaction to retrieve said participant data from said name service.

1   17.   (Amended) The computer-readable medium of Claim 11, wherein:

2   said distributed operation is a distributed database transaction;

3   the ~~computer-readable medium~~ **steps** further ~~includes sequences of instructions for~~

4   ~~performing~~ **include** the step of assigning a transaction identifier to said distributed

5   database transaction;

6   the step of registering includes registering in said name service data that associates said

7   participant data with said transaction identifier; and

8   the step of causing a **particular** node includes causing a **particular** node to request from

9   said name service published data associated with said transaction identifier.

1   18.   (Amended) The computer-readable medium of Claim 11, wherein the ~~step of causing a~~

2   ~~node to retrieve said participant data includes~~ **steps further include** said name service

3   ~~process~~ receiving a request from a first process to supply said participant data, wherein

4   said name service ~~process~~ and said first process reside on said **particular** node.

1   19.   (Amended) The computer-readable medium of Claim 18, wherein the step of causing a

2   **particular** node ~~to retrieve said participant data~~ includes said name service ~~process~~

3   retrieving said participant data from one or more data structures residing on said

4   **particular** node in response to receiving said request.

1   20.   (Cancelled)